



Nathaniel Chin
US EPA Region One
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: Public Notice: (Draft Permit) CITGO Braintree Terminal, East Braintree, MA, MA0004782

Dear Mr. Chien,

Fore River Residents Against the Compressor Station (FRRACS) is not only fighting against the Weymouth Compressor Station, but fighting for a cleaner future for the Fore River Basin.

FRRACS appreciates the opportunity to comment on the CITGO Terminal NPDES permit. We have several serious concerns about the permit and the facility.

We have members from around Massachusetts and specifically hundreds from the Fore River Basin Communities of Braintree, Quincy and Weymouth. The Fore River Basin has two Environmental Justice Neighborhoods of Quincy Point and Germantown.

Cumulative Impact and Equity

The Fore River Basin has 10 polluting facilities located in a small geographic area. We are concerned about cumulative environmental and public health impacts from air and water pollution in the basin.

MassDEP in their air permits does not consider cumulative impacts of multiple polluting facilities in a geographic area such as the Fore River Basin.

We urge the EPA and MassDEP to consider cumulative water pollution, health, and environmental impacts from the different polluting facilities in the Fore River Basin and have water monitoring in different areas of the Fore River Basin to measure water quality conditions and mitigate toxic and hazardous pollutant sources for people and the environment.

Climate Resiliency

Furthermore, our climate is changing and causing sea levels to rise and causing stronger storms. With this in mind, we are concerned about the resiliency of the stormwater system and facility.

CITGO and adjacent industrial facilities are located in the hurricane evacuation zones. CITGO's dock and oil pipelines are located in Zone A which would be the first location to flood during a hurricane or tropical storm (see image 3). We have, thankfully, not been hit badly by a hurricane



in the Fore River Basin recently. However you can look to strong storms that have hit industrial and hazardous waste facilities in the Gulf of Mexico like Hurricane Harvey which resulted in [hundreds of hazardous waste releases](#).

The good news is that although CITGO's pipeline and the docks are in more vulnerable FEMA flood zones that have been prone to flooding, much of the tank farm is above this area. The EPA and the Commonwealth should be especially concerned about CITGO's neighbor, the Sprague Terminals in Quincy Point, which are both entirely in FEMA flood zones.

In a strong nor'easter, winter storm, hurricane or tropical storm hazardous materials from CITGO's pipeline from the dock, and facilities like Sprague, Clean Harbors, and others could be spread with a strong storm surge onto parks, playgrounds, beaches, yards, vegetable gardens, and homes.

What does CITGO have in place to prevent storm surge and sea level rise from inundating their stormwater system and facility including the docks and pipelines to the tanks?

1. Do they have a berm and or raised facilities to prevent flooding and sea level rise?
2. Are there check valves to ensure that salt water does not come up the stormwater outfall into the CITGO Facility? Storm surge or higher tides with sea level rise could potentially cause salt water from the Fore River to back up into parts of the facility by the docks. If none are in place we urge that check valves be put in place to prevent flooding.
3. Are the submersible pumps able to pump stormwater storm surge conditions and high tide?

Fisheries Concerns

In the draft CITGO permit there is mention of various fish species that could be in the area of the outfall.

The permit failed to mention the information about fish species in the Fore River Basin. The Fore River has one of the [largest rainbow smelt runs in the Commonwealth](#). Smelt go up different tributaries to the Fore River, including but not limited to Smelt Brook and the Monatiquot River, to spawn crossing the main part of the Fore River Basin by CITGO terminal

The Fore River has a significant [river herring run of Alewife and Blueback Herring](#) that go up the Monatiquot River to spawn. Atlantic Tomcod also are known to spawn in the Fore River.

Additionally migratory American eel are known to migrate up tributaries to the Fore River including Smelt Brook which has an [eel ladder at Pond Meadow Park](#) and the Monatiquot River which is actively being restored as a part of a [dam removal and river restoration project](#).



Migratory fish utilizing other tributaries in the basin including Smelt Brook which has long segments of culverts in Weymouth Landing. Rainbow smelt and american eel migrate through Smelt Brook Culverts so there is a possibility American eel, Smelt or some other species of migratory fish are also using Hayward Creek to migrate and spawn. Adult American eel likely live in Eaton's Pond as juveniles can climb through the outfall of the dam.

Additionally, at the Hayward Creek Culvert that outlets into the Fore River the CITGO Facility there is a fishway that supports some time of unidentified migratory fish species. The fishway is near the culvert inlet off of West Howard Street (see images 1 and 2).

The Army Corps of Engineers built this fishway and some type of fish spawning substrate or armoring above the ladder as a part of their [Hayward Creek Local Protection Project](#).

Because there was a fishway and substrate created in this project specifically there likely is some unknown additional migratory fish species in Hayward Creek and Eatons Pond. We implore MassDEP and EPA to consider looking into what species the fisway was made for and take into account potential migratory rainbow smelt and american eel habitat in permitting.

Thank you for your attention and we look forward to hearing back from you on our questions.

Technical Comments

Please make deadlines for all related actions in the permit.

Under Part I A. Effluent Limitations and Monitoring Requirements, on page 12 – items 3 through 8 these requirements are not sufficiently specific. We request numeric effluent limitations as these non-numeric effluent limitations proposed are not specific and hard to enforce.

In Page 40, Part II Section C. 1.b, Since records are maintained by the permittee, is there a provision so the public can access those records?

Page 101 the bottom paragraph begins saying, After a site visit . . . and goes on to describe an unauthorized re-routing of a discharge.

Comment: The proposed solution is to mandate monitoring. The permit states later, in paragraph 2 on page 102, EPA finds that requiring the Permittee to collect monitoring data and submit these data in a summary report is reasonable and sufficiently stringent to carry out the provisions of the CWA and ensure compliance with applicable WQSs. I do not find any prescribed action if the monitoring identifies a problem.

Section 6.1 Endangered Species Act includes some important fish and turtles species are listed. EPA says an expert consultation is not necessary. We request expert consultation on endangered species.



Additionally, for endangered species, the New England Aquarium's Quincy Animal Care Center is located at the adjacent Fore River Shipyard. The facility helps rehabilitate endangered and threatened sea turtles and other species that were rescued. Salt water is taken from the Fore River for this facility. Additionally the facility holds animals undergoing quarantine prior to going to Boston. EPA must consider this when permitting discharges of effluent into the Fore River.

PFAS Concerns

Although acute toxicity tests will be conducted twice a year of Potential Impacts to EFH Species to ensure that the discharge does not present toxicity problems, long-term bioaccumulation effects are not taken into account by this decision but are equally important. MassDEP is responsible to assure that Waters of the US are not adversely impacted by the actions of industry that discharge to them. And while we understand that "Acute testing was chosen due to the intermittent nature of the Facility's stormwater discharge", the ultimate impact of bioaccumulative chemicals, even intermittently discharged into Waters of the US, will bind to suspended particles or sediments, and likely ultimately accumulate in aquatic organisms. We therefore suggest broadening the list of parameters to incorporate the following persistent and bioaccumulative chemicals and that the test instead be Chronic Toxicity - Marine and Estuarine WET Methods. Note that DoD Quality Standard Methods (QSM) Version 5.1 has been used in some studies to test fish and shellfish for PFAS compounds and may be better suited for the list of PFAS compounds.

- Mercury (if not part of Total Metals)
 - 16 PAH compounds identified as priority pollutants under the CWA (including Benzo(g,h,i)perylene)
- Polychlorinated Biphenyls (PCBs)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluorodecanoic acid (PFDA)

• Permit Section 5.3.9 discusses Special Conditions for additional monitoring of stormwater discharges to an Unpermitted Stormwater Outfall. This particular area is... "associated with a wetland swale area and provided treatment through a Vortex separator" and is routed through an unpermitted outfall. This area is downgradient from an apparently impacted oil release area where there is a BELD groundwater remediation system. "The additional monitoring requirement aims to characterize the discharge from the Unpermitted Stormwater Outfall based on sampling and analysis using a sufficiently sensitive test method in accordance with 40 CFR Part 136."

The Special Condition requires 2 grab samples collected prior to the Vortex unit for the list of chosen parameters, which are based on what "EPA reasonably believes may be present, given existing data for the Facility, current and historic activities at the Facility, and impairments in the



receiving water.” The Special Conditions list of parameters does not include PFAS and there is the potential that the area of concern might have been impacted by the use of AFFF or PFAS-containing fume suppressant. Please indicate where the site has historically used AFFF for training and/or firefighting purposes or where fume suppression materials were historically managed. Please show this in respect to the historically contaminated area where the Vortex treatment system is located on a site map or drawing or by written description. If such products were used in this area, the list of PFAS compounds, should be included in the analyses of the 2 grab samples as shown below.

- a) Total recoverable metals analysis for: antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc.
- b) Flow, TSS and pH, concurrently with the samples requested in a. above.
- c) Oil & grease, TPH, total Group I PAHs, total Group II PAHs, and total BTEX, concurrently with the samples requested in a. above.
- d) Total nitrogen, ammonia, total phosphorus, total cyanide, concurrently with the samples requested in a. above.
- e) Perfluorohexanesulfonic acid (PFHxS)
- f) Perfluoroheptanoic acid (PFHpA)
- g) Perfluorononanoic acid (PFNA)
- h) Perfluorooctanesulfonic acid (PFOS)
- i) Perfluorooctanoic acid (PFOA)
- j) Perfluorodecanoic acid (PFDA)

Stormwater runoff from the southern and eastern portions of the Facility is collected and processed through a treatment system consisting of a Vortex Stormceptor Unit with a design flow rate of 6,000 GPM and a maximum rating of 7.5942 MGD prior to discharge through Unpermitted Stormwater Outfall to the Weymouth Fore River (OWS 4). A Stormceptor works best for chemical contaminants that tend to cling to particulates. The Vortex Stormceptor traps and retains trash, debris, sediment, and hydrocarbons from stormwater runoff, separates the contaminant and the solids from stormwater using a weir system. This type system would likely work for hydrocarbons and PCB, for example, but not for PFAS compounds, which clearly exist at the Facility.

Oil/Water Separators, in general, can be effective but they must be maintained. If not properly maintained, oil/water separators are totally ineffective and can actually add to the problem. The Facility has numerous oil/water separators, working alone and in tandem with other treatment technologies. These systems have apparently been in place since and in some cases, prior to, previous permit revisions. Now that it has been determined that PFAS compounds are also a contaminant of concern (COC), a review of all treatment systems must be reviewed for efficacy in treating all COC. Methods to detect efficacy and maintenance of treatment systems should also be reviewed and improved, given the variable nature of the physical properties of the numerous PFAS compounds that the Facility will be dealing with. For example, treating



short-chain PFAS through the existing carbon treatment system (OWS 3) along with hydrocarbons and long-chain PFAS will likely impact the carbon change-out schedule. Any changes from this review should be implemented and added to the site Stormwater Pollution Prevention Plan and maintenance systems updated to assure control devices are inspected and maintained.

“The Draft Permit prohibits discharges of AFFF either in concentrate form or as foam diluted with water during testing or maintenance of the fire suppression system at the Facility.” The final permit should require that the facility only use fluorine-free firefighting foam for training exercises and fume suppression and to the extent feasible, for fire suppression.

Importance of Maintenance

In summary on the efficacy and safety of treated stormwater discharge, it is all dependent on the operating & maintenance attention of the facility. Oil/Water Separators can be effective in general but they must be maintained. If not properly maintained, oil/water separators are totally ineffective and can actually add to the problem. Additionally we hope, watching for breakthroughs on carbon, changing booms in separators, cleaning Stormceptors and maintaining other infrastructure is necessary for the effectiveness of the stormwater system in preventing pollution.

The Enbridge Gas Transmission Compressor Station has been given the go ahead by DEP and PHMSA, despite two significant "unplanned releases" to begin releasing toxic methane and VOCs into the Fore River Basin. This additional polluter poses a threat to the CITGO facility.

Thank you for your attention and we look forward to hearing back from you on our questions.

Best,

A handwritten signature in blue ink, reading "Robert V. Kearns", is enclosed in a light blue rectangular box.

Robert Kearns

Fore River Residents Against the Compressor Station Board Member

CC:

Martin Suuberg Commissioner, MassDEP

Bob Boeri, Massachusetts Office of Coastal Zone Management

Mayor Kokoros Town of Braintree

Braintree Town Council

Braintree Conservation Commission

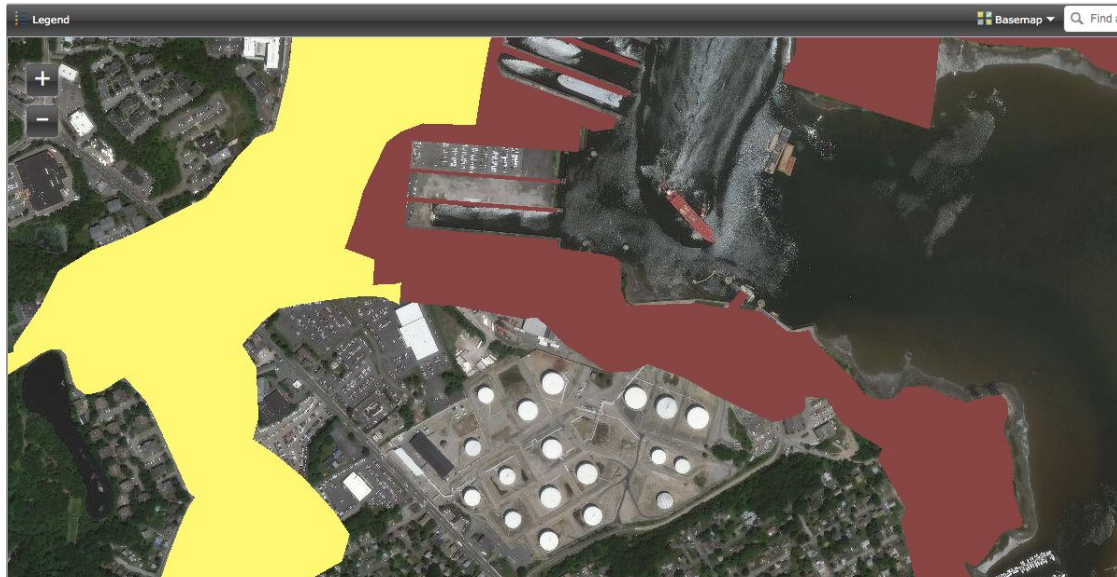


1. Hayward Creek Fishway (Unknown Species)



2. Hayward Creek Fishway (Species unknown)

FRRACS
NO COMPRESSOR
South Shore, MA



3. Hurricane Evacuation Zone A Red CITGO